

Guam Land Based Action Strategy



Overview

Stakeholders: Farmers, Fishermen, Residents, Local DOAG, GEPA, NRCS, GCMP, UOG, Marine Lab and College of Agriculture and Life Sciences, Southern Guam SWCD, GVB, USNPS, DOD, GFD

Existing Management: Ugum/Talofofo watershed project, Talofofo waterway project, Environmental Quality Incentives Program (EQIP), Forestry Land Enhancement Program (FLEP/Stewardship), Highly Erodible Land Conservation Plans, General Conservation planning.

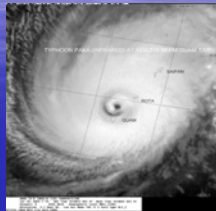


Impacts/Issues

- Increased Sedimentation
- Lack of Adequate Enforcement
- Lack of Public Support and Participation
- Lack of Adequate Planning

Root Causes

- Natural erosion i.e. high rainfall events and bank erosion, fires, agriculture, and development
- Lack of a general understanding of what a watershed is and the awareness of the importance of watersheds.



Major Causes

- Insufficient planning, lack of maintenance, forest land converted into grassland, poachers starting brushfires, etc.



Trends in Condition and Resource Use

- Continued decline in reef health unless proper planning, treatment, and enforcement are implemented.



Geographic Areas/Key Studies

- Two of the nineteen watersheds (Fouha, Ugum) and surrounding coastal areas.
- Ugum/Talofofo watershed project, Fena Watershed Resource Assessment: Erosion and Sediment Identification for Critical Area Treatment, Fouha watershed, Guam River Basin Study, Talofofo waterway project, Ugum Resource Assessment, Ugum Assessment Plan, Ugum Best Management Practices, Total Maximum Daily Load for Turbidity



Specific Goal of the Action Strategy

This action strategy:

- will improve water quality for drinking water production (Ugum Watershed)
- coral propagation/recruitment and aquatic species diversity in two priority watersheds by increasing or providing funding for enforcement, educational outreach (demonstration/pilot treatment sites), and environmental planning. (Fouha Watershed)



Strategies likely to resolve the impact/issue

- *Implementing and Enforcing Existing Regulations and Management Plans*
- *Building Constituencies to Change Stakeholder Behavior*

VEGETATION STRATEGY FOR SOUTHERN GUAM
(A collaborative report by, in alphabetical order: Bell, Fred; Falanruw, Margie; Lawrence, Bart; Limtiaco, Dave and Nelson, Duane)
September 2002

GUAM DIVISION OF FORESTRY AND SOIL RESOURCES
ISLAND OF GUAM
PRESCRIBED FIRE BURN PLAN
2002-2004

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SCHEMATIC RENDERING OF STRATEGY

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BIBLIOGRAPHY

APPENDIX 1. Native Species that might be planted in Guam's savannahs - Margie Falanruw

APPENDIX 2. A matrix and prescriptions for different savannah habitats - Bart Lawrence

APPENDIX 3. Time-lapse glimpses of the Tarzan river savanna - Margie Falanruw



David Limtiaco, Territorial Forester

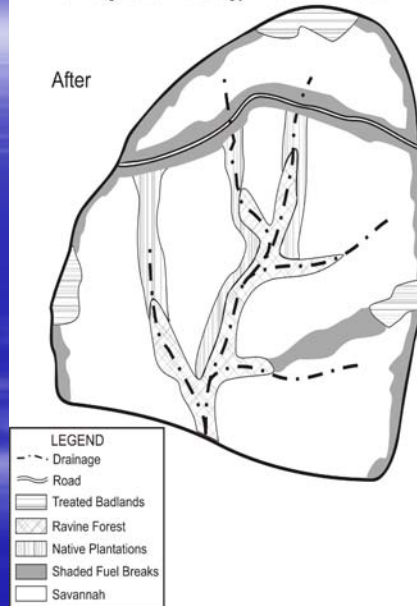
PREPARED BY: Christie Neill, Technical Advisor
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U.S. Forest Service - Pacific Southwest Region
Fire and Aviation Management

ENVIRONMENTAL DOCUMENTATION: Guam
Vegetation Management, FEMA HMGP #1193-202-0025 &
Guam Public Land Use Plan 9/84

Conceptual Watershed
For Vegetation Strategy in Southern Guam



Conceptual Watershed
For Vegetation Strategy in Southern Guam



Strategies likely to resolve the impact/issue

Guam Coastal Nonpoint Source Plan

1.0 Introduction

1.1 Purpose

This plan was developed to fulfill the requirements of §6217 of the Coastal Zone Act Reauthorization.

Amendments of 1990 (CZARA). The purpose of the plan is to "develop and implement management measures for nonpoint source pollution to restore and protect coastal waters, working in close conjunction with other State and local authorities." This plan describes Guam's current ability, through

existing enforceable policies and practices, to comprehensively regulate land uses, water uses and coastal development to reduce and control nonpoint source discharge into the coastal waters of the territory.

1.2 Background

In 1995 the Bureau of Planning in conjunction with the Guam Environmental Protection Agency submitted the Guam Coastal Nonpoint Source Pollution Management Plan. On October 3, 1997 the National Oceanic and Atmospheric Administration (NOAA) and the U.S. Environmental Protection Agency (EPA) approved, subject to certain conditions, the coastal nonpoint pollution control plan pursuant to section 6217(a) of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA).

In retrospect, it is clear that the 1995 plan relied heavily on the proposed development of new laws and

policies, etc., that would bring the Guam's Plan into compliance. Unfortunately, this approach overlooked existing mandates that were already in place to address many of the management measure

criteria. Additionally, since that document submittal in 1995, many of the management measures have

been revised, updated and further strengthened. This planning document serves to bring Guam's NPS

management program into full compliance with the 6217(g) guidance and thereby obtain full plan approval from EPA and NOAA.

1.3 Statement of Compliance

The Territory of Guam is committed to controlling nonpoint source (NPS) discharge into its coastal waters and aquifer. Existing laws, executive orders, regulations, policies and practices are already in place to address a wide range of complex NPS pollution control issues related to agriculture, urban runoff, marinas and recreational boating, hydromodification, wetlands, riparian areas and vegetated treatment. The Territory has a comprehensive plan that authorizes the administration, implementation,

and enforcement of the management measures which are described in this Management Plan for Guam's Coastal Nonpoint Source Program.

Sedimentation

- Re-vegetation (conversion from grassland to forestland).
- Monitor the reduction in soil loss through the Revised Universal Soil Loss Equation (RUSLE) with installed conservation practices.
- Increase incentives for the farmers.
- Stewardship programs (tree planting on private lands) or the Forestry Land Enhancement Program. (FLEP)
- Increase funding for equipment and training from Region 9 EPA.
- Public outreach (posters, demonstration sites, pamphlets, monthly public meetings, etc.).
- Increased fines for violators.



Lack of Adequate Planning /Enforcement

- *Increase funding that will allow for the hiring of additional qualified staff and added training for the existing staff.*
- *Increased funding that will allow for the purchase of needed equipment.*



Specific Impact/Issue

- This strategy will focus on treatment and management of two of the nineteen watersheds:
- Fouha and surrounding coastal areas
- Ugum and surrounding coastal areas

